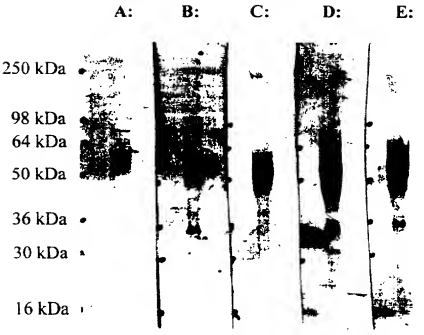


FIG.1

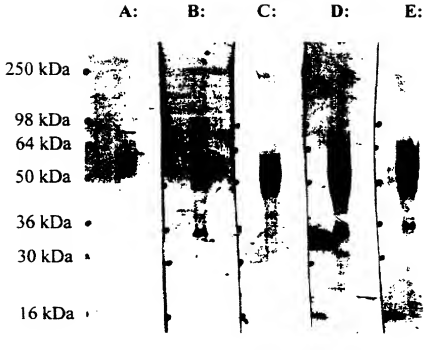
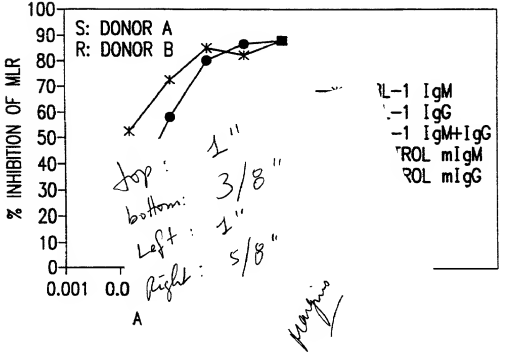


FIG. 1


S: DONOR A
R: DONOR B
% INHIBITION OF MLR
L-1 IgM
-1 IgG
-1 IgM+IgG
ROL mIgM
ROL mIgG
top: 1"
bottom: 3/8"
Left: 1"
Right: 5/8"
margins
A

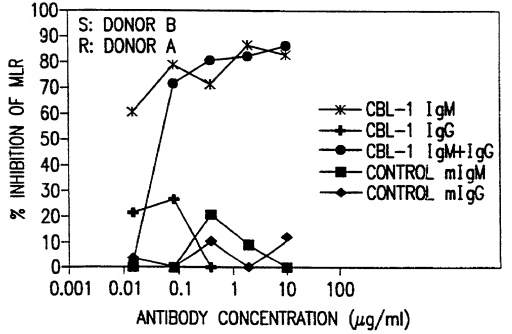

S: DONOR B
R: DONOR A
% INHIBITION OF MLR
CBL-1 IgM
CBL-1 IgG
CBL-1 IgM+IgG
CONTROL mIgM
CONTROL mIgG
ANTIBODY CONCENTRATION (μg/ml)

FIG.2B

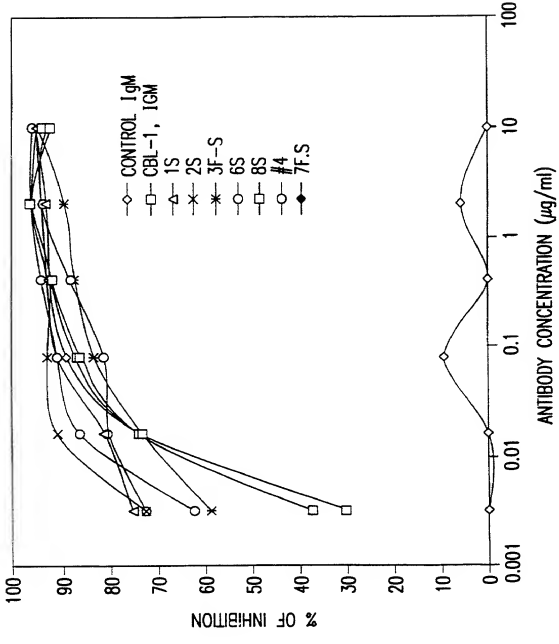

% OF INHIBITION
100
90
80
70
60
50
40
30
20
10
0
0.001
0.01
0.1
1
10
100
ANTIBODY CONCENTRATION (μg/ml)
CONTROL IgM
CBL-1, IGM
1S
2S
3F-S
6S
8S
#4
7F.S

FIG.3

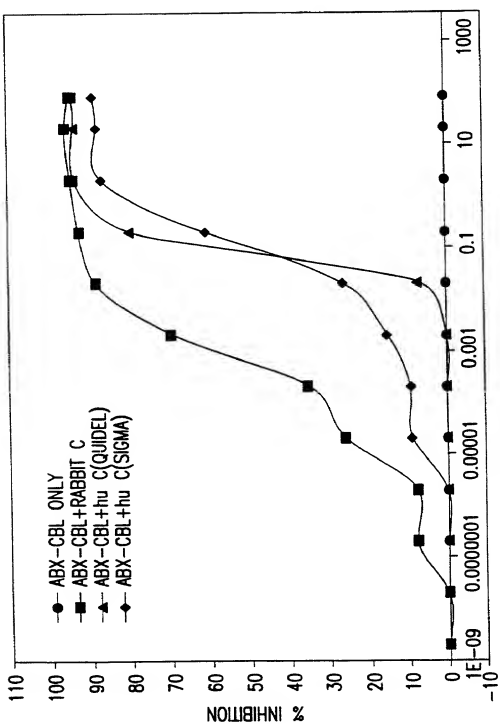

ABX-CBL ONLY
ABX-CBL+RABBIT C
ABX-CBL+hu C(QUIDEL)
ABX-CBL+hu C(SIGMA)
% INHIBITION
110
100
90
80
70
60
50
40
30
20
10
0
-10
1E-09
0.0000001
0.00001
0.001
0.1
10
1000
ANTIBODY CONCENTRATION (µg/ml)

FIG.4

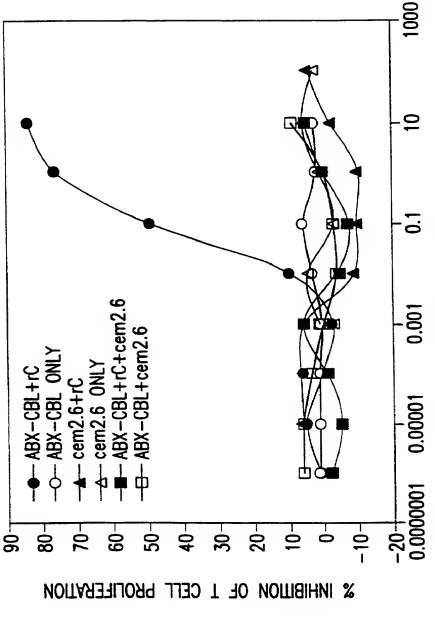

% INHIBITION OF T CELL PROLIFERATION
90
80
70
60
50
40
30
20
10
0
-10
-20
0.0000001
0.00001
0.001
0.1
10
1000
ANTIBODY CONCENTRATION (μg/ml)
ABX-CBL+rC
ABX-CBL ONLY
cem2.6+rC
cem2.6 ONLY
ABX-CBL+rC+cem2.6
ABX-CBL+cem2.6

FIG.5

112497.005
2.1%
53.3%
26.6%
17.9%
cem 2.6
CD25

FIG. 6A

112497.004
18.9%
50.0%
29.6%
1.6%
CBL
CD25

FIG. 6B

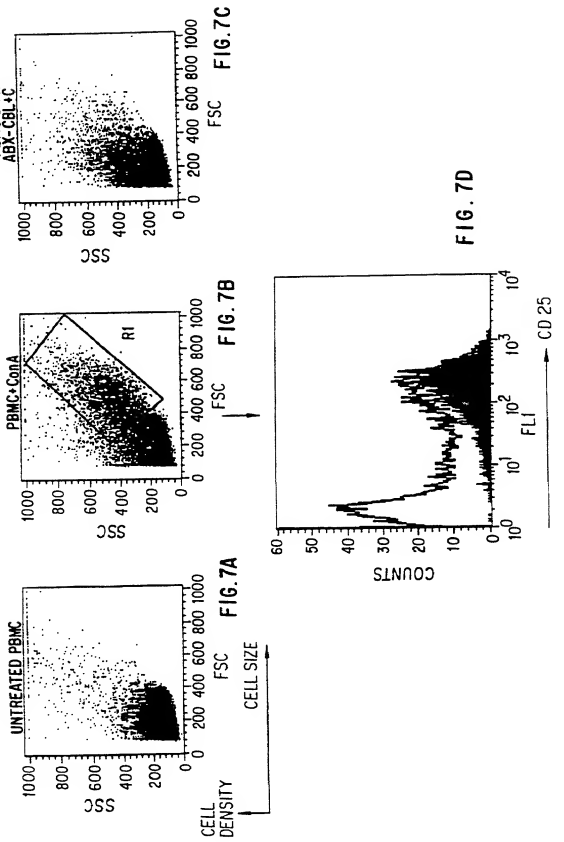

UNTREATED PBMC
SSC
FSC
CELL DENSITY
CELL SIZE
FIG. 7A
PBMC+ConA
R1
SSC
FSC
FIG. 7B
PBMC+ConA
ABX-CBL+C
SSC
FSC
FIG. 7C
COUNTS
FL1
CD 25
FIG. 7D

FIG. 8A

FIG. 8B

FIG. 8C

FIG. 8D

FIG. 9A

FIG. 9B

FIG. 9C

FIG. 9D

FIG. 10A

FIG. 10B

FIG. 10C

FIG. 10D

FIG. 10E

FIG. 10F

FIG. 11A

FIG. 11B

FIG. 11C

FIG. 11D

FIG. 11E

FIG. 11F

CELL TYPE	SURFACE MARKERS	CDC DEPLETION
RESTING T CELLS	$CD3^+CD25^-$	NO
ACTIVATED T CELLS	$CD3^+(CD4^+/CD8^+)CD25^+$	YES
RESTING B CELLS	$CD20^+CD25^-$	NO
ACTIVATED B CELLS	$CD20^+CD25^+$	YES
RESTING MONOCYTES	$CD14^+CD25^-$	YES
ACTIVATED MONOCYTES	$CD14^+CD25^+$	YES

FIG.12

CELL	CELL TYPE	CBL Ag EXPRESSION	CBL CDC
CEM	T CELL	++	+
JURKAT	T CELL	++	–
U937	MONOCYTE	++	+
A431	EPIDERMAL	++	–
SW948	COLON	+++	–
MDA468	BREAST	+	–

FIG.13

CELL	CELL TYPE	CBL EXPRESSION	CBL CDC	CD55	CD59
CEM	T CELL	++	+	-	+
JURKAT	T CELL	++	-	+	+
U937	MONOCYTE	++	+	+	-
A431	EPIDERMAL	++	-	+	+
SW948	COLON	+++	-	+	+
MDA468	BREAST	+	-	+	+

FIG.14

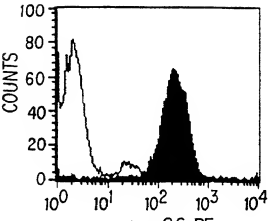


FIG. 15A

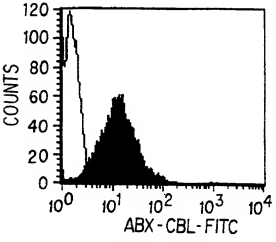


FIG. 15B

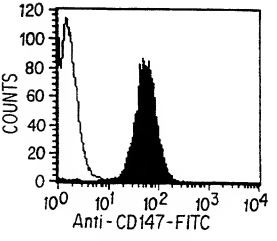


FIG. 15C

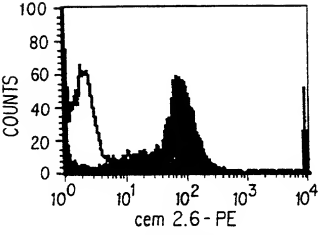


FIG. 16A

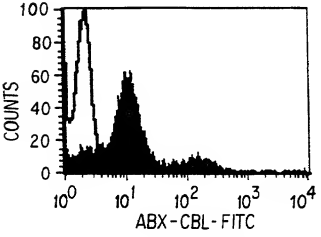


FIG. 16B

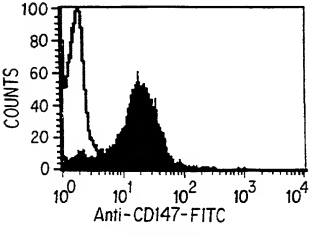


FIG. 16C

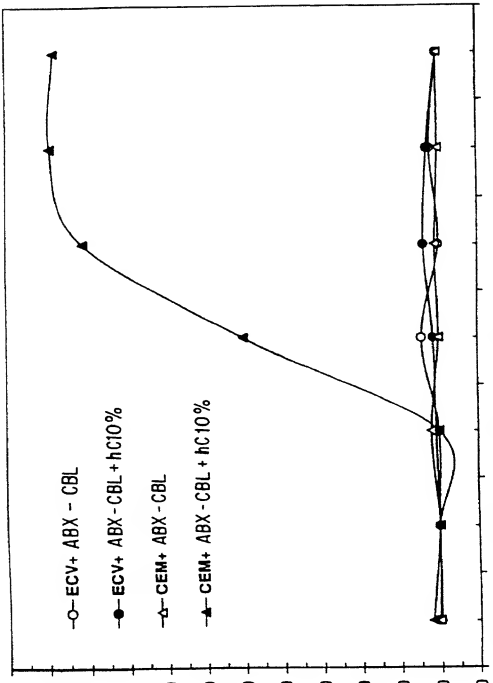

% of Died Cells
110
100
90
80
70
60
50
40
30
20
10
0
-10
0.00001
0.0001
0.001
0.01
0.1
1
10
ABX - CBL CONCENTRATION (µg/ml)
ECV+ ABX - CBL
ECV+ ABX - CBL + hC10%
CEM+ ABX - CBL
CEM+ ABX - CBL + hC10%

FIG. 17

% OF CELLS DIED
110
100
90
80
70
60
50
40
30
20
10
0
-10
0.00001
0.0001
0.001
0.01
0.1
1
10
ABX-CBL CONCENTRATION (µg/ml)
HUV-EC+ ABX-CBL
HUV-EC+ ABX-CBL+hC10%
CEM+ ABX-CBL
CEM+ ABX-CBL+hC10%

FIG. 18

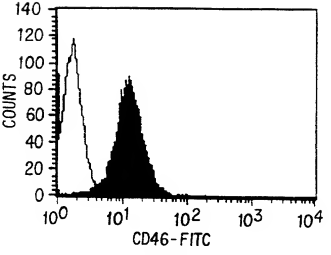


FIG. 19A

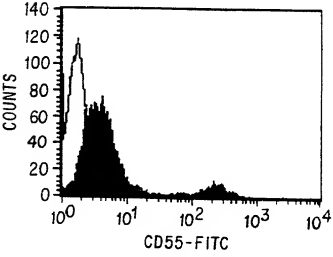


FIG. 19B

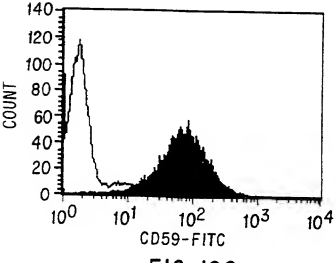


FIG. 19C

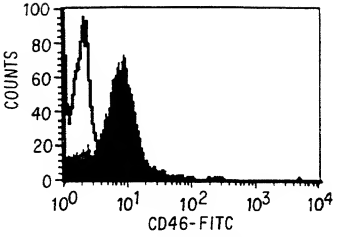


FIG. 20A

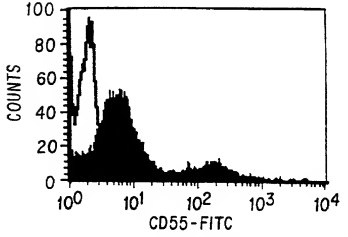


FIG. 20B

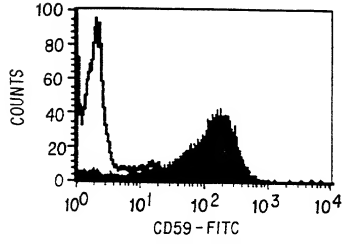


FIG. 20C

CMV PROMOTER/ENHANCER
CMV SPLICE DONOR
α GLOBIN SPLICE ACCEPTOR
MULTIPLE CLONING SITES
SV40 POLY A
HIND III
SAC I
AVA I
ECORI
APA I
HPA I
pWBFNP
4324bp
AmpR
ORI

FIG.21

pBK-CMV
PHAGEMID VECTOR
4518 bp
Ssp I 4410
Nae I 134
Ssp I 445
Mlu I 463
SV40 POLY(A)
SV40 3' SPLICE
T7
5' SPLICE
Kpn I 1019
Sac I 1126
T3
lac
Nhe I 1300
Nsi I 1900
Mst II 2756
Nae I 3086
Nae I 3369
Mst II 4388
Nsi I 4303
Nsi I 4231
Pbla
SV40 ORIGIN
f1 (-) ORIGIN
lacz
MCS*
CMV
ColE1 ORIGIN
Neor
TK POLY(A)
*MCS = MULTIPLE CLONING SITE
CONTAINS POLYLINKER + Spe I SITE

FIG.22

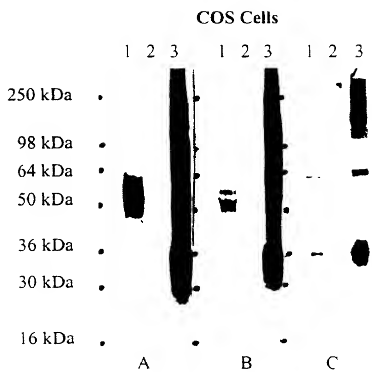

COS Cells
1 2 3 1 2 3 1 2 3
250 kDa
98 kDa
64 kDa
50 kDa
36 kDa
30 kDa
16 kDa
A
B
C

FIG.23A

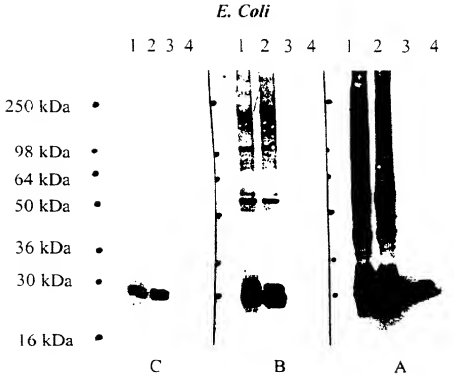

E. Coli
1 2 3 4 1 2 3 4 1 2 3 4
250 kDa
98 kDa
64 kDa
50 kDa
36 kDa
30 kDa
16 kDa
C
B
A

FIG.23B

IgM Antibody Sequences

CEM 10.1 C3 Heavy cDNA

```
GGACTGTTGA AGCCTTCGGA GACCCTGTCC CTCACCTGCG CTGTCTATGG      50
TGGGTCCTTC AGTGGTTACT ACTGGAGCTG GATCCGCCAG CCCCCAGGGA     100
AGGGGCTGGA GTGGATTGGG GAAATCAATC ATAGTGGAAG CACCAACTAC     150
AACCCGTCCC TCAAGAGTCG AGTCACCATA TCAGTAGACA CGTCCAAGAA     200
CCAGTTCTCC CTGAAGCTGA GCTCTGTGAC CGCNGCGGAC ACGGCTGTGT     250
ATTACTGTGC GAGAGGCACT ACGGAATATT ACTACTACTA CTACGGTATG     300
GACGTCTGGG GCCAAGGGAC CACGGTCACC GTCTCCTCAG GGAGTGCATC     350
CGCCCCAACC CTTTTCCCCC TCGTCTCCTG TGAGAATTCC CCGTCGGATA     400
CGAGCAGCGT GGCCGTTGGC TGCCTCGCAC AGGACTTCCT TCCCGACTYC     450
ATCACTTTCT CCTGGAAATA CAAGAACAAC TCTGACATCA GCAGCACCCG     500
GGGCTTCCCA TCAGTCCTGA GAGGGGGCAA GTACGCAGCC ACCTCACAGG     550
TGCTGCTGCC TTCCAAGGAC GTCATGCAGG GCACAGACGA ACACGTGGTG     600
ACGGGATCCA AAGAGTA                                         617
```

(SEQ ID NO:62)

CEM 10.1 C3 Heavy Protein

```
GLLKPSETLS LTCAVYGGSF SGYYWSWIRQ PPGKGLEWIG EINHSGSTNY      50
NPSLKSRVTI SVDTSKNQFS LKLSSVTAAD TAVYYCARGT TEYYYYYYGM     100
DVWGQGTTVT VSSGSASAPT LFPLVSCENS PSDTSSVAVG CLAQDFLPDX     150
ITFSWKYKNN SDISSTRGFP SVLRGGKYAA TSQVLLPSKD VMQGTDEHVV     200
TGSKE                                                      205
```

(SEQ ID NO:23)

CEM 10.1 C3 Kappa cDNA

```
CTCTCCCTGC CCGTCACCCC TGGAGAGCCG GCCTCCATCT CCTGCAGGTC      50
TAGTCAGAGC CTCCTGCATA GTAATGGATA CAACTATTTG GATTGGTACC     100
TGCAGAAGCC AGGGCAGTCT CCACAGCTCC TGATCTATTT GGGTTCTAAT     150
CGGGCCTCCG GGGTCCCTGA CAGGTTCAGT GGCAGTGGAT CAGGCACAGA     200
TTTTACACTG AAAATCAGCA GAGTGGAGGC TGAGGATGTT GGGATTTATT     250
ACTGCATGCA GACTCGACAA ACTCCTCGGA CGTTCGGCCA AGGGACCAAG     300
GTGGAAATCA AACGAACTGT GGCTGCACCA TCTGTCTTCA TCTTCCCGCC     350
ATCTGATGAG CAGTTGAAAT CTGGAACTGC CTCTGTTGTG TGCCTGCTGA     400
ATAACTTCTA TCCCAGAGAG GCCAAAGAGC ATCAAAAGAG TCCA           444
```

(SEQ ID NO:63)

CEM 10.1 C3 Kappa Protein

```
LSLPVTPGEP ASISCRSSQS LLHSNGYNYL DWYLQKPGQS PQLLIYLGSN      50
RASGVPDRFS GSGSGTDFTL KISRVEAEDV GIYYCMQTRQ TPRTFGQGTK     100
VEIKRTVAAP SVFIFPPSDE QLKSGTASVV CLLNNFYPRE AKEHQKSP       148
```

(SEQ ID NO:24)

FIG. 24

IgM Antibody Sequences

CEM 10.1 G10 Heavy cDNA

```
CTGGTGAAGC CTTCGGAGAC CCTGTCCCTC ACCTGCACTG TCTCTGGTGG    50
CTCCATCAGT AGTTACTACT GGAACTGGAT CCGGCAGCCC CCAGGGAAGG   100
GACTGGAGTG GATTGGGTAT ATCTATTACA GTGGGAGCAC CAACTACAAC   150
CCCTCCCTCA AGAGTCGAGT CACCATATCA GTAGACACGT CCAAGAACCA   200
GTTCTCCCTG AAGCTGAGCT CTGTGACCGC TGCGGACACG GCCGTGTATT   250
ACTGTGCGAG AGATAGGGGA GTGGGAGCTA CTGGTTTTGA CTACTGGGGC   300
CAGGGAACCC TGGTCACCGT CTCCTCAGGG AGTGCATCCG CCCCAACCCT   350
TTTCCCCCTC GTCTCCTGTG AGAATTCCCC GTCGGATACG AGCAGCGTGG   400
CCGTTGGCTG CCTCGCACAG GACTTCCTTC CCGACTCCAT CACTTTCTCC   450
TGGAAATACA AGAACAACTC TGACATCAGC AGCACCCGGG GCTTCCCATC   500
AGTCCTGAGA GGGGGCAAGT ACGCAGCCAC CTCACAGGTG CTGCTGCCTT   550
CCAAGGACGT CATGCAGGGC ACAGACGAAC ACAAGGTGTG CGA          593
```

(SEQ ID NO:64)

CEM 10.1 G10 Heavy Protein

```
LVKPSETLSL TCTVSGGSIS SYYWNWIRQP PGKGLEWIGY IYYSGSTNYN    50
PSLKSRVTIS VDTSKNQFSL KLSSVTAADT AVYYCARDRG VGATGFDYWG   100
QGTLVTVSSG SASAPTLFPL VSCENSPSDT SSVAVGCLAQ DFLPDSITFS   150
WKYKNNSDIS STRGFPSVLR GGKYAATSQV LLPSKDVMQG TDEHKVC      197
```

(SEQ ID NO:25)

CEM 10.1 G10 Kappa cDNA

```
AGCCAGTCTC CATCCTCCCT GTCTGCATCT GTAGGAGAGA GAGTCACCAT    50
CACTTGCCGG GCAAGTCAGG GCATTAGAGA TGAATTAGGC TGGTATCAGC   100
AGAAACCAGG GAAAGCCCCT AAGCGCCTGA TCTATGTTGC ATCCAGTTTG   150
CAAAGTGGGG TCCCATCAAG GTTCAGCGGC AGTGGATCTG GGACAGAATT   200
CACTCTCACA ATCAGCAGCC TGCAGCCTGA AGATTTTGCA ACTTATTACT   250
GTCTACAGCA TAATGGTTAC CCTCGGACGT TCGGCCAAGG GACCAAGGTG   300
GAAATCAAAC GAACTGTGGC TGCACCATCT GTCTTCATCT TCCCGCCATC   350
TGATGAGCAG TTGAAATCTG GAACTGCCTC TGTTGTGTGC CTGCTGAATA   400
ACTTCTATCC CAGAGAGGCC AAAGAGCATC AAAAGAGTCC A            441
```

(SEQ ID NO:65)

CEM 10.1 G10 Kappa Protein

```
SQSPSSLSAS VGERVTITCR ASQGIRDELG WYQQKPGKAP KRLIYVASSL    50
QSGVPSRFSG SGSGTEFTLT ISSLQPEDFA TYYCLQHNGY PRTFGQGTKV   100
EIKRTVAAPS VFIFPPSDEQ LKSGTASVVC LLNNFYPREA KEHQKSP      147
```

(SEQ ID NO.26)

FIG. 25

IgM Antibody Sequences

CEM 10.12 F3 Heavy cDNA

```
AAGAAGCCTG GGGCCTCAGT GAAGGTCTCC TGCAAGGCTT CTGGATACAC      50
CTTCACCAGT TATGATATCA ACTGGGTGCG ACAGGCCACT GGACAAGGGC     100
TTGAGTGGAT GGGATGGATG AACCCTAACA GTGGTAACAC AGGCTATGCA     150
CAGAAGTTCC AGGGCAGAGT CACCATGAAC AGGAACACCT CCATAAGCAC     200
AGCCTACATG GAGCTGAGCA GCCTGAGATC TGAGGACACG GCCGTGTATT     250
ACTGTGCGAG AGGGGGTCAT GGTGGGAGCT ACTTCTACTC CTAYTACGGT     300
ATGGACGTCT GGGGCCAGGG GACCACGGTC ACCGTCTCCT CAGGGAGTGC     350
ATCCGCCCCA ACCCTTTTCC CCCTCGTCTC CTGTGAGAAT TCCCCGTCGG     400
ATACGAGCAG CGTGGCCGTT GGCTGCCTCG CACAGGACTT CCTTCCCGAC     450
TCCATCACTT TCTCCTGGAA ATACAAGAAC AACTCTGACA TCAGCAGCAC     500
CCGGGGCTTC CCATCAGTCC TGAGAGGGGG CAAGTACGCA GCCACCTCAC     550
AGGTGCTGCT GCCTTCCAAG GACGTCATGC AGGGCACAGA CGAACACGTG     600
GTGTGCAAAC                                                610
```

(SEQ ID NO:66)

CEM 10.12 F3 Heavy Protein

```
KKPGASVKVS CKASGYTFTS YDINWVRQAT GQGLEWMGWM NPNSGNTGYA      50
QKFQGRVTMN RNTSISTAYM ELSSLRSEDT AVYYCARGGH GGSYFYSYYG     100
MDVWGQGTTV TVSSGSASAP TLFPLVSCEN SPSDTSSVAV GCLAQDFLPD     150
SITFSWKYKN NSDISSTRGF PSVLRGGKYA ATSQVLLPSK DVMQGTDEHV     200
VCK                                                        203
```

(SEQ ID NO:27)

CEM 10.12 F3 Kappa cDNA

```
CACTCCCTGG CTGTGTCTCT GGGCGAGAGG GCCACCATCA ACTGCAAGTC      50
CAGCCAGAGT GTTTTATACA GTTTTAACAA TAAGAACTAC TTAGCTTGGT     100
ACCAGCAGAA ACCAGGACAG CCTCCTAAGC TGCTCATTTA CTGGGCATCT     150
ACCCGGGAAT CCGGGGTCCC TGACCGATTC GGTGGCAGCG GGTCTGGGAC     200
AGATTTCACT CTCACCATCA GCAGCCTGCA GGCTGAAGAT GTGGCAGTTT     250
ATTACTGTCA GCAATATTAT AGTACTCCTM GGACGTTCGG CCAAGGGACC     300
AAGGTGGAAA TCAAACGAAC TGTGGCTGCA CCATCTGTCT TCATCTTCCC     350
GCCATCTGAT GAGCAGTTGA AATCTGGAAC TGCCTCTGTT GTGTGCCTGC     400
TGAATAACTT CTATCCCAGA GAGGCCAAAG AGCATCAAAA GAGTCCA        447
```

(SEQ ID NO:67)

CEM 10.12 F3 Kappa Protein

```
HSLAVSLGER ATINCKSSQS VLYSFNNKNY LAWYQQKPGQ PPKLLIYWAS      50
TRESGVPDRF GGSGSGTDFT LTISSLQAED VAVYYCQQYY STPRTFGQGT     100
KVEIKRTVAA PSVFIFPPSD EQLKSGTASV VCLLNNFYPR EAKEHQKSP      149
```

(SEQ ID NO:28)

FIG. 26

IgM Antibody Sequences

CEM 10.12 G5 Heavy

```
GAGGTGAAGA AGCCTGGGGC CTCAGTGAAG GTCTCCTGCA AGGCTTCTGG      50
ATACACCTTC ACCAGTTATG ATATCAACTG GGTGCGACAG GCCACTGGAC     100
AAGGGCTTGA GTGGATGGGA TGGATGAACC CTAACAGTGG TAACACAGGC     150
TATGCACAGA AGTTCCAGGG CAGAGTCACC ATGACCAGGA ACACCTCCAT     200
AAGCACAGCC TACATGGAGC TGAGCAGCCT GAGATCTGAG GACACGGCCG     250
TGTATTACTG TGCGAGAGAG GAGTGGCTGG TACGTTACTA CGGTATGGAC     300
GTCTGGGGCC AAGGGACCAC GGTCACCGTC TCCTCAGGGA GTGCATCCGC     350
CCCAACCCTT TTCCCCCTCG TCTCCTGTGA GAATTCCCCG TCGGATACGA     400
GCAGCGTGGC CGTTGGCTGC CTCGCACAGG ACTTCCTTCC CGACTCCATC     450
ACTTTCTCCT GGAAATACAA GAACAACTCT GACATCAGCA GCACCCGGGG     500
CTTCCCATCA GTCCTGAGAG GGGGCAAGTA CGCAGCCACC TCACAGGTGC     550
TGCTGCCTTC CAAGGACGTC ATGCAGGGCA CAGACGAACA CAAGGTGTG      599
```

(SEQ ID NO:68)

CEM 10.12 G5 Heavy Protein

```
EVKKPGASVK VSCKASGYTF TSYDINWVRQ ATGQGLEWMG WMNPNSGNTG      50
YAQKFQGRVT MTRNTSISTA YMELSSLRSE DTAVYYCARE EWLVRYYGMD     100
VWGQGTTVTV SSGSASAPTL FPLVSCENSP SDTSSVAVGC LAQDFLPDSI     150
TFSWKYKNNS DISSTRGFPS VLRGGKYAAT SQVLLPSKDV MQGTDEHKV      199
```

(SEQ ID NO:29)

CEM 10.12 G5 Kappa cDna

```
GGCCAGTCTC CATCCTCCCT GTCTGCATCT GTAGGAGACA GAGTCACCAT      50
CACTTGCCGG GCAAGTCAGG ACATTAGAGA TAATTTAGGC TGGTATCAGC     100
AGAAACCAGG GAAAGCCCCT AAGCGCCTGA TCTATGCTGC ATCCAATTTG     150
CAAAGTGGGG TCCCATCAAG GTTCAGCGGC AGTGGATCTG GGACAGAATT     200
CACTCTCACA ATCAGCAGCC TGCAGCCTGA AGATTTTGCA ACTTATTACT     250
GTCTACAGTA TAAAACTTAC CCGTGGACGT TCGGCCAAGG GACCAAGGTG     300
GAAATCAAAC GAACTGTGGC TGCACCATCT GTCTTCATCT TCCCGCCATC     350
TGATGAGCAG TTGAAATCTG GAACTGCCTC TGTTGTGTGC CTGCTGAATA     400
ACTTCTATCC CAGAGAGGMC AAAGAGCATC AAAAGAGTCC A              441
```

(SEQ ID NO:69)

CEM 10.12 G5 Kappa Protein

```
GQSPSSLSAS VGDRVTITCR ASQDIRDNLG WYQQKPGKAP KRLIYAASNL      50
QSGVPSRFSG SGSGTEFTLT ISSLQPEDFA TYYCLQYKTY PWTFGQGTKV     100
EIKRTVAAPS VFIFPPSDEQ LKSGTASVVC LLNNFYPREX KEHQKSP         147
```

(SEQ ID NO:30)

FIG. 27

IgM Antibody Sequences

CEM 13.12 Heavy cDNA

```
AAGCTTCCGG AGACCCTGTC CCTCACCTGC GCTGTCTATG GTGGGTCCTT      50
CAGTGGTTAC TACTGGAGCT GGATCCGCCA GCCCCCAGGG AAGGGGCTGG     100
AGTGGATTGG GGAAATCAAT CATAGTGGAA GCACCAACTA CAACCCGTCC     150
CTCAAGAGTC GAGTCACCAT ATCAGTAGAC ACGTCCAAGA ACCAGTTCTC     200
CCTGAAGCTG AGCTCTGTGA CCGCCGCGGA CACGGCTGTG TATTACTGTG     250
CGAGAGGGGC AGCTGAATAT TACTACTACT ACTACGGTAT GGACGTCTGG     300
GGCCAAGGGA CCACGGTCAC CGTCTCCTCA GGGAGTGCAT CCGCCCCAAC     350
CCTTTTCCCC CTCGTCTCCT GTGAGAATTC CCCGTCGGAT ACGAGCAGCG     400
TGGCCGTTGG CTGCCTCGCA CAGGACTTCC TTCCCGACTY CATCACTTTC     450
TYCTGGAAAT ACAAGAACAA CTCTGACATC AGCAGCACCC GGGGCTTCCC     500
ATCAGTCCTG AGAGGGGGCA AGTACGCAGC CACCTCACAG GTGCTGCTGC     550
CTTCCAAGGA CGTCATGCAG GGCACAGACG AACACGTGGT GACGGGATCC     600
AAAGAGT                                                   607
```

(SEQ ID NO:70)

CEM 13.12 Heavy Protein

```
KLPETLSLTC AVYGGSFSGY YWSWIRQPPG KGLEWIGEIN HSGSTNYNPS     50
LKSRVTISVD TSKNQFSLKL SSVTAADTAV YYCARGAAEY YYYYYGMDVW     100
GQGTTVTVSS GSASAPTLFP LVSCENSPSD TSSVAVGCLA QDFLPDXITF     150
XWKYKNNSDI SSTRGFPSVL RGGKYAATSQ VLLPSKDVMQ GTDEHVVTGS     200
KE                                                        202
```

(SEQ ID NO:31)

CEM 13.12 Kappa cDNA

```
ATGCCCGTCA CCCCTGGAGA GCCGGCCTCC ATCTCCTGCA GGTCTAGTCA      50
GAGCCTCCTG CATAGTAATG GATACAACTA TTTGGACTGG TACCTGCAGA     100
AGCCAGGGCA GTCTCCACAG CTCCTGATCT ATTTGGGTTC TAATCGGGCC     150
TCCGGGGTCC CTGACAGGTT CAGTGGCAGT GGATCAGGCA CAGATTTTAC     200
ACTGAAAATC AGCAGAGTGG AGGCTGAGGA TGTTGGGATT TATTACTGCA     250
TGCAAAGTCT ACAAATTCCC CGGCTTTTCG GCCCTGGGAC CAAAGTGGAT     300
ATCAAACGAA CTGTGGCTGC ACCATCTGTC TTCATCTTCC CGCCATCTGA     350
TGAGCAGTTG AAATCTGGAA CTGCCTCTGT TGTGTGCCTG CTGAGTAACT     400
TCTATCCCAG AGAGGCCAAA GTACAGTGGA A                         431
```

(SEQ ID NO:71)

CEM 13.12 Kappa Protein

```
MPVTPGEPAS ISCRSSQSLL HSNGYNYLDW YLQKPGQSPQ LLIYLGSNRA      50
SGVPDRFSGS GSGTDFTLKI SRVEAEDVGI YYCMQSLQIP RLFGPGTKVD     100
IKRTVAAPSV FIFPPSDEQL KSGTASVVCL LSNFYPREAK VQW             143
```

(SEQ ID NO:32)

FIG. 28

IgM Antibody Sequences 29/52

CEM 13.5 Heavy cDNA

```
TCGGAGACCC TGTCCCTCAC CTGCGCTGTC TATGGTGGGT CCTTCAGTGG      50
TTACTACTGG AGCTGGATCC GCCAGCCCCC AGGGAAGGGG CTGGAGTGGA     100
TTGGGGAAAT CAATCATAGT GGAAGCACCA ACTACAACCC GTCCCTCAAG     150
AGTCGAGTCA CCATATCAGT AGACACGTCC AAGAACCAGT TCTCCCTGAA     200
GCTGAGTTCT GTGACCGCCG CGGACACGGC TGTGTATTAC TGTGCGAGAG     250
GCGGGACTAC AGTAACTTTT GATGCTTTTG ATATCTGGGG CCAAGGGACA     300
ATGGTCACCG TCTCTTCAGG GAGTGCATCC GCCCCAACCC TTTTCCCCCT     350
CGTCTCCTGT GAGAATTCCC CGTCGGATAC GAGCAGCGTG GCCGTTGGCT     400
GCCTCGCACA GGACTTCCTT CCCGACTCCA TCACTTTCTC CTGGAAATAC     450
AAGAACAACT CTGACATCAG CAGCACCCGG GGCTTCCCAT CAGTCCTGAG     500
AGGGGGCAAG TACGCAGCCA CCTCACAGGT GCTGCTGCCT TCCAAGGACG     550
TCATGCAGGG CACAGACGAA                                     570
```

(SEQ ID NO:72)

CEM 13.5 Heavy Protein

```
SETLSLTCAV YGGSFSGYYW SWIRQPPGKG LEWIGEINHS GSTNYNPSLK      50
SRVTISVDTS KNQFSLKLSS VTAADTAVYY CARGGTTVTF DAFDIWGQGT     100
MVTVSSGSAS APTLFPLVSC ENSPSDTSSV AVGCLAQDFL PDSITFSWKY     150
KNNSDISSTR GFPSVLRGGK YAATSQVLLP SKDVMQGTDE                190
```

(SEQ ID NO:33)

CEM [15.5] Kappa cDNA

```
CTGGCTGTGT CTCTGGGCGA GAGGGCCACC ATCAACTGCA AGTCCAGCCA      50
GAGTGTTTTA TACAGTTTTA ACAATAAGAA CTACTTAGCT TGGTACCAGC     100
AGAAACCAGG ACAGCCTCCT AAGCTGCTCA TTTACTGGGC ATCTACCCGG     150
GAATCCGGGG TCCCTGACCG ATTCAGTGGC AGCGGGTCTG GGACAGATTT     200
CACTCTCACC ATCAGCAGCC TGCAGGCTGA AGATGTGGCA GTTTATTACT     250
GTCAGCAATA TTATAGTACT CCTCGGACGT TCGGCCAAGG GACCAAGGTG     300
GAAATCAAAC GAACTGTGGC TGCACCATCT GTCTTCATCT TCCCGCCATC     350
TGATGAGCAG TTGAAATCTG GAACTGCCTC TGTTGTGTGC CTGCTGAATA     400
ACTTCTATCC CAGAGAGGCC AAAGTACAGT GGAAGGTGAT C              441
```

(SEQ ID NO:73)

CEM 13.5 Kappa Protein

```
LAVSLGERAT INCKSSQSVL YSFNNKNYLA WYQQKPGQPP KLLIYWASTR      50
ESGVPDRFSG SGSGTDFTLT ISSLQAEDVA VYYCQQYYST PRTFGQGTKV     100
EIKRTVAAPS VFIFPPSDEQ LKSGTASVVC LLNNFYPREA KVQWKVI        147
```

(SEQ ID NO:34)

FIG. 29

IgG Antibody Sequences

2.4.4 Heavy cDNA

```
AACCCACAGA CGACCCTCAC GCTGACCTGC ACCTTCTCTG GGTTCTCACT      50
CATTACCCGT GGAGTGGGTG TGGATTGGAT CCGTCAGCCC CCAGGAAAGG     100
CCCTGCAGTG GCTCGCACTC ATTTATTGGA ATGATGATAA GCGCTACAGT     150
CCATCTCTGA AGAGCAGGCT CACCATCACC AAGGACACCT CCAAAAACCA     200
GGTGGTCCTC ACAATGACCA ACATGGACCC TGTGGACACA GCCACATATT     250
ACTGTGCACA CCATTTCTTT GATAGTAGTG GTTATTACCC TTTTGACTCC     300
TGGGGCCAGG GAACCCTGGT CTCCGTCTCC TCAGCCTCCA CCAAGGGCCC     350
ATCGGTCTTC CCCCTGGCGC CCTGCTCCAG GAGCACCTCC GAGAGCACAG     400
CGGCCCTGGG CTGCCTGGTC AAGGACTACT TCCCCGAACC GGTGACG       447
```

(SEQ ID NO:74)

2.4.4 Heavy Protein

```
NPQTTLTLTC TFSGFSLITR GVGVDWIRQP PGKALQWLAL IYWNDDKRYS      50
PSLKSRLTIT KDTSKNQVVL TMTNMDPVDT ATYYCAHHFF DSSGYYPFDS     100
WGQGTLVSVS SASTKGPSVF PLAPCSRSTS ESTAALGCLV KDYFPEPVT      149
```

(SEQ ID NO:35)

2.4.4 Kappa cDNA

```
GTGACTCAGT CTCCACTCTC TCTGTCCGTC ACCCCTGGAC AGCCGGCCTC      50
CATCTCCTGC AAGTCTAGTC AGAGCCTCCT GCATAGTGAT GGAAAGACCT     100
ATTTGTATTG GTACCTGCAG AAGCCAGGCC AGCCTCCACA GCTCCTGATC     150
TATGAAGCTT TCAACCGGTT CTCTGGAGTG CCAGATAGGT TCAGTGGCAG     200
CGGGTCAGGG ACAGATTTCA CACTGAAAAT CAGCCGGGTG GAGGCTGAGG     250
ATGTTGGACT TTATTATTGC ATGCAAAGTA TAGAGCTTCC GTTCACTTTC     300
GGCGGAGGGA CCAAGGTGGA GATCAAACGA ACTGTGGCTG CACCATCTGT     350
CTTCATCTTC CCGCCATCTG ATGAGCAGTT GAAATCTGGA ACTGCCTCTG     400
TTGTGTGCCT GCTGAATAAC TTCTATCCCA GAAAAGAAAG AGTCR          445
```

(SEQ ID NO:75)

2.4.4 Kappa Protein

```
VTQSPLSLSV TPGQPASISC KSSQSLLHSD GKTYLYWYLQ KPGQPPQLLI      50
YEAFNRFSGV PDRFSGSGSG TDFTLKISRV EAEDVGLYYC MQSIELPFTF     100
GGGTKVEIKR TVAAPSVFIF PPSDEQLKSG TASVVCLLNN FYPRKERV       148
```

(SEQ ID NO:36)

FIG. 30

IgG Antibody Sequences

2.1.1 Heavy cDNA

```
GGGGAAGGCC TGGTCAAGCC TGGGGGGTCC CTGAGACTCT CCTGTGCAGC      50
CTCTGGATTC ACCTTCAGTA GCTATAGCAT GAACTGGGTC CGCCAGGCTC     100
CAGGGAAGGG GCTGGAGTGG GTCTCATCCA TTAGTAGTAG TAGTAGTTAC     150
ATATACTACG CAGACTCAGT GAAGGGCCGA TTCACCATCT CCAGAGACAA     200
CGCCAAGAAC TCACTGTATC TGCAAATGAA CAGCCTGAGA GCCGAGGACA     250
CGGCTGTGTA TTACTGTGCG AGGGATAGCA GTGGCTGGTA TGAGGACTAC     300
TTTGACTACT GGGGCCAGGG AACCCTGGTC ACCGTCTCCT CAGCCTCCAC     350
CAAGGGCCCA TCGGTCTTCC CCCTGGCGCC CTGCTCCAGG AGCACCTCCG     400
AGAGCACAGC GGCCCTGGGC TGCCTGGTCA AGGACTACTT CCCCGAACCG     450
GTGACGGTGT CGTGGAACTC AGGCGCTCTG ACCAGCGGCG TGCACACCTT     500
CCCAGCTGTC CTACAGTCA                                      519
```

(SEQ ID NO:76)

2.1.1 Heavy Protein

```
GEGLVKPGGS LRLSCAASGF TFSSYSMNWV RQAPGKGLEW VSSISSSSSY      50
IYYADSVKGR FTISRDNAKN SLYLQMNSLR AEDTAVYYCA RDSSGWYEDY     100
FDYWGQGTLV TVSSASTKGP SVFPLAPCSR STSESTAALG CLVKDYFPEP     150
VTVSWNSGAL TSGVHTFPAV LQS                                  173
```

(SEQ ID NO:37)

2.1.1 Kappa cDNA

```
CTTGACATCC AGCTGACCCA GTCTCCGTCC TCACTGTCTG CATCTGTAGG      50
AGACAGAGTC ACCATCACTT GTCGGGCGAG TCAGGACATT AGCATTTATT     100
TAGCCTGGTT TCAGCAGAGA CCAGGGAAAG CCCCTAAGTC CCTGATCTAT     150
GCTGCATCCA GTTTGCAAAG TGGGGTCCCA TCAAAGTTCA GCGGCAGTGG     200
ATCTGGGACA GATTTCACTC TCACCATCAG CAGCCTGCAG CCTGAAGATT     250
TTGCAACTTA TTACTGCCAA CAATATAATA GTTATCCATT CACTTTCGGG     300
CCC                                                       303
```

(SEQ ID NO:77)

2.1.1 Kappa Protein

```
LDIQLTQSPS SLSASVGDRV TITCRASQDI SIYLAWFQQR PGKAPKSLIY      50
AASSLQSGVP SKFSGSGSGT DFTLTISSLQ PEDFATYYCQ QYNSYPFTFG     100
P                                                         101
```

(SEQ ID NO:38)

FIG. 31

IgG Antibody Sequences

2.3.2 Heavy cDNA

```
CTGACCTGCA CCTTCTCTGG GTTCTCACTC ATTACCCGTG GAGTGGGTGT      50
GGATTGGATC CGTCAGCCCC CAGGAAAGGC CCTGCAGTGG CTCGCACTCA     100
TTTATTGGAA TGATGATAAG CGCTACAGTC CATCTCTGAA GAGCAGGCTC     150
ACCATCACCA AGGACACCTC CAAAAACCAG GTGGTCCTCA CAATGACCAA     200
CATGGACCCT GTGGACACAG CCACATATTA CTGTGCACAC CATTTCTTTG     250
ATAGTAGTGG TTATTACCCT TTTGACTCCT GGGGCCAGGG AACCCTGGTC     300
TCCGTCTCCT CAGCCTCCAC CAAGGGCCCA TCGGTCTTCC CCCTGGCGCC     350
CTGCTCCAGG AGCACCTCCG AGAGCACAGC GGCCCTGGGC TGCCTGGTCA     400
AGGACTACTT CCCCGAACCG GTGACGGTGT CGTGGAACTC AGGCGCTCTG     450
ACCAGCGGCG TGCACACCTT CCAGCTG                              477
```

(SEQ ID NO:78)

2.3.2 Heavy Protein

```
LTCTFSGFSL ITRGVGVDWI RQPPGKALQW LALIYWNDDK RYSPSLKSRL      50
TITKDTSKNQ VVLTMTNMDP VDTATYYCAH HFFDSSGYYP FDSWGQGTLV     100
SVSSASTKGP SVFPLAPCSR STSESTAALG CLVKDYFPEP VTVSWNSGAL     150
TSGVHTFQL                                                  159
```

(SEQ ID NO:39)

FIG. 32

IgG Antibody Sequences

2.6.1 Heavy cDNA

```
GGGGGAGGCT TGGTACAGCC TGGGGGGTCC CTGAGACTCT CCTGTGCAGC      50
CTCTGGATTC ACTTTTAGCA GCTATGCCAT GAGCTGGGTC CGCCAGGCTC     100
CAGGGAAGGG GCTGGAGTGG GTCTCAACTA TTAGTGTTAG TGGTATTACC     150
ACATACTACG TAGACTCCGT GAAGGGCCGG TTCACCATCT CCAGAGACAA     200
TTCCAAGAAC ATTCTGTATC TGCAAATGAA CAGCCTGAGA GCCGAGGACA     250
CGGCCGTATA TTACTGTGCG AAACGGATTT TTGGAGTGGT CTGGGGCCAG     300
GGAACCCTGG TCACCGTCTC CTCAGCCTCC ACCAAGGGCC CATCGGTCTT     350
CCCCCTGGCG CCCTGCTCCA GGAGCACCTC CGAGAGCACA GCGGCCCTGG     400
GCTGCCTGGT CAAGGACTAC TTCCCCGAAC CGGTGACGGT GTCGTGGAAC     450
TTAGGCGCTC TGACCAGCGG CGTGCACACC TTCCCAGCTG TCCTACAGTC     500
CTA                                                       503
```

(SEQ ID NO:79)

2.6.1 Heavy Protein

```
GGGLVQPGGS LRLSCAASGF TFSSYAMSWV RQAPGKGLEW VSTISVSGIT      50
TYYVDSVKGR FTISRDNSKN ILYLQMNSLR AEDTAVYYCA KRIFGVVWGQ     100
GTLVTVSSAS TKGPSVFPLA PCSRSTSEST AALGCLVKDY FPEPVTVSWN     150
LGALTSGVHT FPAVLQS                                         167
```

(SEQ ID NO:40)

2.6.1 Kappa cDNA

```
GGAATTCGGC TTGATATTCA GCTGACTCAG TCTCCATCCT CACTGTCTGC      50
ATCTGTAGGA GACAGAGTCA CCATCACTTG TCGGGCGAGT CAGGGCATTA     100
GCATTTATTT AGCCTGGTTT CAGCAGAGAC CAGGGAAAGC CCCTAAGTCC     150
CTGATCTATG CTGCATCCAG TTTGCAAAGT GGGGTCCCAT CAAAGTTCAG     200
CGGCAGTGGA TCTGGGACAG ATTTCACTCT CACCATCAGC AGCCTGCAGC     250
CTGAAGATTT TGCAACTTAT TACTGCCAAC AATATAATAG TTACCCATTC     300
ACTTTCGGCC CTGGGACCAA AGTGGATATC AAACGAACTG TGGCTGCACC     350
ATCTGTCTTC ATCTTCCCGC CATCTGATGA GCAGTTGAAA TCTGGAACTG     400
CCTCTGTTGT GTGCCTGCTG AATAACTTCT ATCCCAGAGA GGCCAAAGTA     450
CAGTGGAAGG TGGATAACGC CCTCCAATCG GGTAAGCCGA ATTC           494
```

(SEQ ID NO:80)

2.6.1 Kappa Protein

```
GIRLDIQLTQ SPSSLSASVG DRVTITCRAS QGISIYLAWF QQRPGKAPKS      50
LIYAASSLQS GVPSKFSGSG SGTDFTLTIS SLQPEDFATY YCQQYNSYPF     100
TFGPGTKVDI KRTVAAPSVF IFPPSDEQLK SGTASVVCLL NNFYPREAKV     150
QWKVDNALQS GKPN                                            164
```

(SEQ ID NO:41)

FIG. 33

IgM Antibody Sequences

CEM 10.1 C3 Heavy Protein

GLLKPSETLSLTCAVYGGSFSGYYWSWIRQPPGKGLEWIGEINHSGSTNYNPSLKSRVTISVDTSKNQFS
CDR1 CDR2

LKLSSVTAADTAVYYCARGTTEYYYYYYGMDVWGQGTTVTVSSGSASAPTLFPLVSCENSPSDTSSVAVG
CDR3

CLAQDFLPDXITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDEHVVTGSKE

CEM 10.1 C3 Kappa Protein

LSLPVTPGEPASISCRSSQSLLHSNGYNYLDWYLQKPGQSPQLLIYLGSNRASGVPDRFSGSGSGTDFTL
CDR1 CDR2

KISRVEAEDVGIYYCMQTRQTPRTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPRE
CDR3

AKEHQKSP

FIG. 34

IgM Antibody Sequences

CEM 10.1 G10 Heavy Protein

LVKPSETLSLTCTVSGGSISSYYWNWIRQPPGKGLEWIGYIYYSGSTNYNPSLKSRVTISVDTSKNQFSL
CDR1 CDR2
KLSSVTAADTAVYYCARDRGVGATGFDYWGQGTLVTVSSGSASAPTLFPLVSCENSPSDTSSVAVGCLAQ
CDR3
DFLPDSITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDEHKVC

CEM 10.1 G10 Kappa Protein

SQSPSSLSASVGERVTITCRASQGIRDELGWYQQKPGKAPKRLIYVASSLQSGVPSRFSGSGSGTEFTLT
CDR1 CDR2
ISSLQPEDFATYYCLQHNGYPRTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREA
CDR3
KEHQKSP

FIG. 35

IgM Antibody Sequences

CEM 10.12 F3 Heavy Protein

KKPGASVKVSCKAS<u>GYTFTSYDIN</u>WVRQATGQGLEWMG<u>WMNPNSGNTGYAQKFQG</u>RVTMNRNTSISTAYM
CDR1 CDR2
ELSSLRSEDTAVYYCAR<u>GGHGGSYFYSYYGMDV</u>WGQGTTVTVSSGSASAPTLFPLVSCENSPSDTSSVAV
CDR3
GCLAQDFLPDSITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDEHVVCK

CEM 10.12 F3 Kappa Protein

HSLAVSLGERATINC<u>KSSQSVLYSFNNKNYLA</u>WYQQKPGQPPKLLIY<u>WASTRES</u>GVPDRFGGSGSGTDFT
CDR1 CDR2
LTISSLQAEDVAVYYC<u>QQYYSTPRT</u>FGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPR
CDR3
EAKEHQKSP

FIG. 36

IgM Antibody Sequences

CEM 10.12 G5 Heavy Protein

EVKKPGASVKVSCKASGYTFTSYDINWVRQATGQGLEWMGWMNPNSGNTGYAQKFQGRVTMTRNTSISTA
CDR1 CDR2
YMELSSLRSEDTAVYYCAREEWLVRYYGMDVWGQGTTVTVSSGSASAPTLFPLVSCENSPSDTSSVAVGC
CDR3
LAQDFLPDSITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDEHKV

CEM 10.12 G5 Kappa Protein

GQSPSSLSASVGDRVTITCRASQDIRDNLGWYQQKPGKAPKRLIYAASNLQSGVPSRFSGSGSGTEFTLT
CDR1 CDR2

ISSLQPEDFATYYCLQYKTYPWTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREX
CDR3
KEHQKSP

FIG. 37

IgM Antibody Sequences

CEM 13.12 Heavy Protein

KLPETLSLTCAVYGGSFSGYYWSWIRQPPGKGLEWIGEINHSGSTNYNPSLKSRVTISVDTSKNQFSLKL
CDR1 CDR2
SSVTAADTAVYYCARGAAEYYYYYYGMDVWGQGTTVTVSSGSASAPTLFPLVSCENSPSDTSSVAVGCLA
CDR3
QDFLPDXITFXWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDEHVVTGSKE

CEM 13.12 Kappa Protein

MPVTPGEPASISCRSSQSLLHSNGYNYLDWYLQKPGQSPQLLIYLGSNRASGVPDRFSGSGSGTDFTLKI
CDR1 CDR2
SRVEAEDVGIYYCMQSLQIPRLFGPGTKVDIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLSNFYPREAK
CDR3
VQW

FIG. 38

IgM Antibody Sequences

CEM 13.5 Heavy Protein

SETLSLTCAVYGGSFSGYYWSWIRQPPGKGLEWIGEINHSGSTNYNPSLKSRVTISVDTSKNQFSLKLSS
CDR1 CDR2
VTAADTAVYYCARGGTTVTFDAFDIWGQGTMVTVSSGSASAPTLFPLVSCENSPSDTSSVAVGCLAQDFL
CDR3
PDSITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDE

CEM 13.5 Kappa Protein

LAVSLGERATINCKSSQSVLYSFNNKNYLAWYQQKPGQPPKLLIYWASTRESGVPDRFSGSGSGTDFTLT
CDR1 CDR2
ISSLQAEDVAVYYCQQYYSTPRTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREA
CDR3
KVQWKVI

FIG. 39

IgG Antibody Sequences

2.4.4 Heavy Protein

NPQTTLTLTCTFSGFSLITRGVGVDWIRQPPGKALQWLALIYWNDDKRYSPSLKSRLTITKDTSKNQVVL
CDR1 CDR2
TMTNMDPVDTATYYCAHHFFDSSGYYPFDSWGQGTLVSVSSASTKGPSVFPLAPCSRSTSESTAALGCLV
CDR3
KDYFPEPVT

2.4.4 Kappa Protein

VTQSPLSLSVTPGQPASISCKSSQSLLHSDGKTYLYWYLQKPGQPPQLLIYEAFNRFSGVPDRFSGSGSG
CDR1 CDR2
TDFTLKISRVEAEDVGLYYCMQSIELPFTFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNN
CDR3
FYPRKERV

FIG. 40

IgG Antibody Sequences

2.1.1 Heavy Protein

GEGLVKPGGSLRLSCAASGFTFSSYSMNWVRQAPGKGLEWVSSISSSSSYIYYADSVKGRFTISRDNAKN
CDR2
SLYLQMNSLRAEDTAVYYCARDSSGWYEDYFDYWGQGTLVTVSSASTKGPSVFPLAPCSRSTSESTAALG
CDR1
CDR3
CLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS

2.1.1 Kappa Protein

LDIQLTQSPSSLSASVGDRVTITCRASQDISIYLAWFQQRPGKAPKSLIYAASSLQSGVPSKFSGSGSGT
CDR1
CDR2
DFTLTISSLQPEDFATYYCQQYNSYPFTFGP
CDR3

FIG. 41

IgG Antibody Sequences

2.3.2 Heavy Protein

LTCTFSGFSLITRGVGVDWIRQPPGKALQWLALIYWNDDKRYSPSLKSRLTITKDTSKNQVVLTMTNMDP
CDR1 CDR2
VDTATYYCAHHFFDSSGYYPFDSWGQGTLVSVSSASTKGPSVFPLAPCSRSTSESTPAALGCLVKDYFPEP
CDR3
VTVSWNSGALTSGVHTFQL

2.3.2 Kappa Protein

FIG. 42

IgG Antibody Sequences

2.6.1 Heavy Protein

GGGLVQPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSTISVSGITTYYVDSVKGRFTISRDNSKN
CDR1 CDR2
ILYLQMNSLRAEDTAVYYCAKRIFGVVWGQGTLVTVSSASTKGPSVFPLAPCSRSTSESTAALGCLVKDY
CDR3
FPEPVTVSWNLGALTSGVHTFPAVLQS

2.6.1 Kappa Protein

GIRLDIQLTQSPSSLSASVGDRVTITCRASQGISIYLAWFQQRPGKAPKSLIYAASSLQSGVPSKFSGSG
CDR1 CDR2
SGTDFTLTISSLQPEDFATYYCQQYNSYPFTFGPGTKVDIKRTVAAPSVFIFPPSDEQLKSGTASVVCLL
CDR3
NNFYPREAKVQWKVDNALQSGKPN

FIG. 43

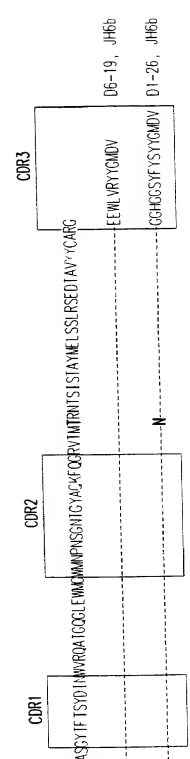


FIG.44A

FIG.44B

FIG.45A

FIG.45B

FIG.45C

FIG.46

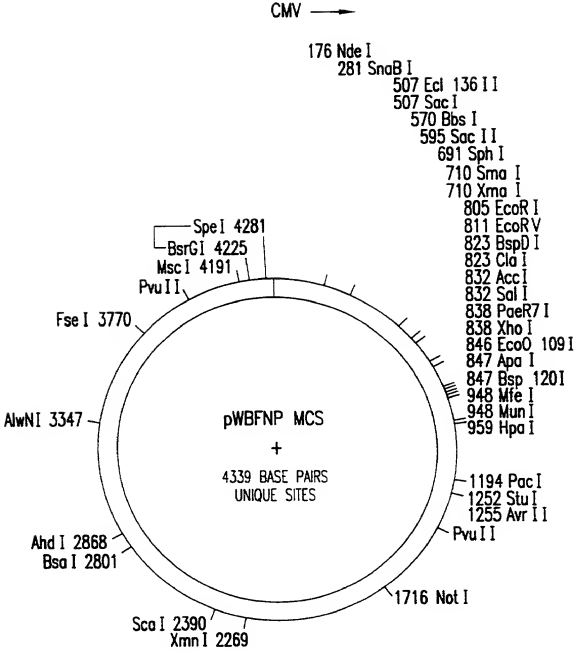

CMV
176 Nde I
281 SnaB I
507 Ecl 136 II
507 Sac I
570 Bbs I
595 Sac II
691 Sph I
710 Sma I
710 Xma I
805 EcoR I
811 EcoR V
823 BspD I
823 Cla I
832 Acc I
832 Sal I
838 PaeR7 I
838 Xho I
846 Eco0 109 I
847 Apa I
847 Bsp 120I
948 Mfe I
948 Mun I
959 Hpa I
1194 Pac I
1252 Stu I
1255 Avr II
Pvu II
1716 Not I
Sca I 2390
Xmn I 2269
Ahd I 2868
Bsa I 2801
AlwNI 3347
Fse I 3770
Pvu II
Msc I 4191
BsrGI 4225
Spe I 4281
pWBFNP MCS
+
4339 BASE PAIRS
UNIQUE SITES

FIG. 47

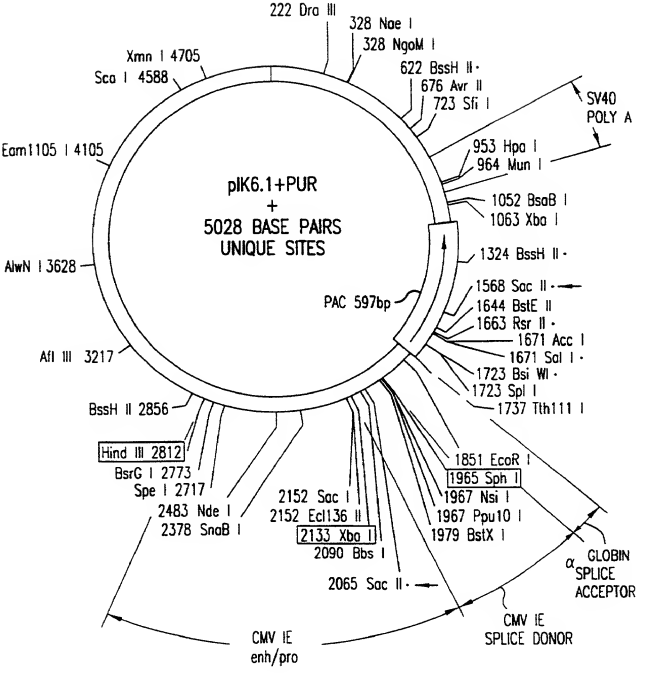

pIK6.1+PUR
+
5028 BASE PAIRS
UNIQUE SITES
222 Dra III
328 Nae I
328 NgoM I
622 BssH II
676 Avr II
723 Sfi I
SV40
POLY A
953 Hpa I
964 Mun I
1052 BsaB I
1063 Xba I
1324 BssH II
1568 Sac II
1644 BstE II
1663 Rsr II
1671 Acc I
1671 Sal I
1723 Bsi WI
1723 Spl I
1737 Tth111 I
1851 EcoR I
1965 Sph I
1967 Nsi I
1967 Ppu10 I
1979 BstX I
GLOBIN
α SPLICE
ACCEPTOR
CMV IE
SPLICE DONOR
2065 Sac II
2090 Bbs I
2133 Xba I
2152 Ecl136 II
2152 Sac I
2378 SnaB I
2483 Nde I
Spe I 2717
BsrG I 2773
Hind III 2812
BssH II 2856
Afl III 3217
AlwN I 3628
Eam1105 I 4105
Sca I 4588
Xmn I 4705
PAC 597bp
CMV IE
enh/pro

FIG.48

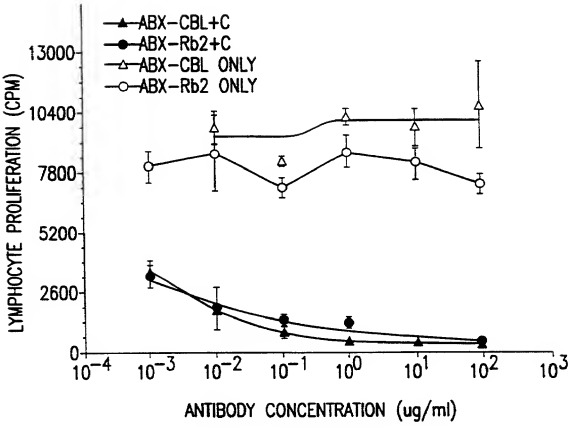

ABX-CBL+C
ABX-Rb2+C
ABX-CBL ONLY
ABX-Rb2 ONLY
LYMPHOCYTE PROLIFERATION (CPM)
13000
10400
7800
5200
2600
0
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
ANTIBODY CONCENTRATION (ug/ml)

FIG.49

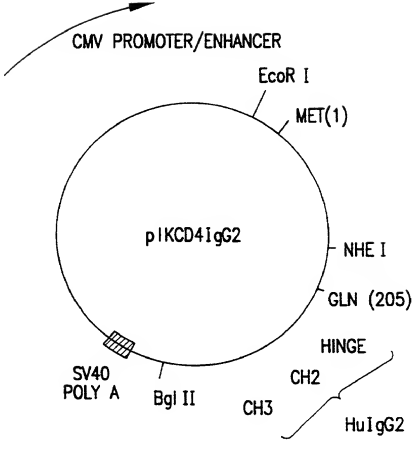

CMV PROMOTER/ENHANCER
EcoR I
MET(1)
pIKCD4IgG2
NHE I
GLN (205)
HINGE
CH2
CH3
HuIgG2
SV40
POLY A
Bgl II

FIG.50A

FIG. 50B

FIG.50C

FIG.50D

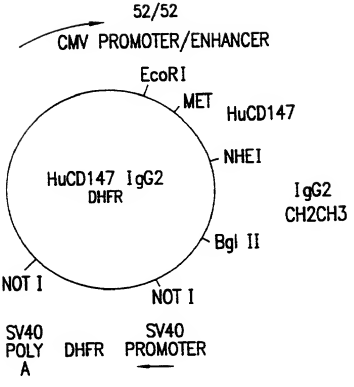


FIG.50E

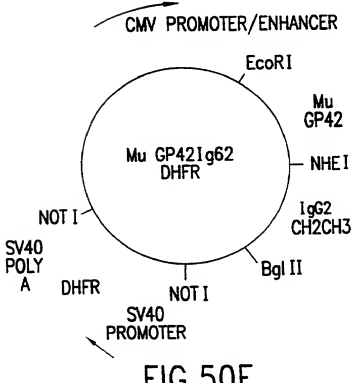


FIG.50F